PCN74

ADDING ZOLEDRONIC ACID TO ENDOCRINE THERAPY IN PREMENOPAUSAL WOMEN WITH HORMONE-RESPONSIVE EARLY BREAST CANCER CAN BE COST-EFFECTIVE FROM ITALIAN, SPANISH, AND PORTUGUESE HEALTH-CARE PERSPECTIVES, BASED ON THE ABCSG-12 TRIAL

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OBJECTIVES: To retrospectively estimate the cost-effectiveness of adding zoledronic acid (ZOL; 4 mg intravenously q6m) to adjuvant endocrine therapy (ET; goserelin plus tamoxifen or anastrozole) in premenopausal women with endocrine-responsive early breast cancer (ERBC) from Italian, Spanish, and Portuguese health-care perspectives. **METHODS:** A Markov model projected lifetime outcomes and costs of care for ERBC patients receiving 3 years' adjuvant ET or adjuvant ET plus ZOL. Cost-effectiveness was measured as the incremental cost per quality-adjusted life-year (QALY) gained. Probabilities of BC recurrence were from the ABCSG-12 trial. Other probabilities and country-specific costs were from published literature. Results were generated under two scenarios: 1) benefits of ZOL persist to the 7-year maximum follow-up (trial benefit); 2) benefits persist until recurrence or death (lifetime benefit). **RESULTS:** Expected ZOL costs (medication and administration) were €1500 (Italy), €2100 (Spain), and €2300 (Portugal). Under the trial benefit scenario, resulting savings from reduced BC recurrence partially offset costs by €900 (both Spain and Italy) and €200 (Portugal). Therefore, projected total ZOL costs were €600 (Italy), €1300 (Spain), and €2100 (Portugal). Projected QALY gains with ZOL were 0.46 (Italy), 0.47 (Spain), and 0.33 (Portugal). Costs per QALY gained were €1304 (Italy), €2766 (Spain), and €6364 (Portugal) (all favorable). Under the lifetime benefit scenario, savings from reduced BC recurrences completely offset ZOL costs and yielded net savings of €2900 (Italy) and €2100 (Spain). Incremental total costs were €1400 for Portugal. Projected QALY gains with ZOL were 1.57 (Italy), 1.59 (Spain), and 0.96 (Portugal). The cost per QALY gained for Portugal was highly favorable (€1458). **CONCLUSIONS:** Adding ZOL to ET in premenopausal women with ERBC can be highly cost-effective (<€50,000 per QALY gained) in Italy, Spain, and Portugal. Additionally, ZOL would be considered cost saving to patients in Italy and Spain if these benefits persist >7 years.

PCN75

COMPARISON OF ADVANCED NONINVASIVE TECHNIQUES TO SCREEN COLORECTAL CANCER: FECAL IMMUNOCHEMICAL TEST VS. FECAL DNA; A COS-EFFECTIVENESS STUDY

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OBJECTIVES: This study aims to compare the guaiac-based fecal immunochemical test (FIT), the primary colorectal cancer (CRC) detection technique, with the fecal DNA (F-DNA) test which has been recommended as an alternative to FIT as the standard of care. **METHODS:** A hybrid decision tree-Markov model was created to estimate the CRC screening cost per quality-adjusted life-year (QALYs) of using the FIT annually, or the F-DNA every 3, or the F-DNA every 5 years in individuals at average CRC risk from a third-party payer's perspective. a hypothetical cohort of 10,000, 50-year-old individuals transitioning between the health states: healthy, polyps <10 mm, polyps >10 mm, local cancer, regional cancer, advanced cancer, and dead, were followed until they were 75 years. Colonoscopy followed every positive test result. Sensitivity, specificity, transition probabilities, and costs (in 2010 US Dollars) were obtained from clinical trials and published peer-reviewed articles. The costs and QALYs were discounted at 3% and sensitivity analyses were conducted. **RESULTS:** Using FIT annually would result in an average cost of $56,716.94/QALY for each individual with an incremental cost-effectiveness ratio (ICER) of $76,181/QALY when compared to F-DNA used every 5 years. In the ICER plane of 1000 Monte Carlo simulations, FIT was more costly but more effective technique compared to F-DNA used every 5 years, in 77% of the samples. FIT was the most cost-effective screening strategy at willingness to pay (WTP) of $100,000/QALY. However, at a lower WTP of $50,000/QALY, F-DNA every 5 years was cost-effective until a threshold of $71,000/QALY. F-DNA conducted every 3 years was completely dominated by FIT. **CONCLUSIONS:** Further research is needed, and third-party payers may need to assess variables such as compliance and patient characteristics, before considering the F-DNA as a standard of care for screening CRC.

PCN76

A SIMULATION MODELLING APPROACH TO QUANTIFY THE COST-EFFECTIVENESS OF EXTRA-CORPOREAL PHOTOPHERESIS IN CHRONIC GRAFT VERSUS HOST DISEASE (CGVHD) IN SPAIN

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OBJECTIVES: Chronic graft-versus-host disease (cGVHD) is a major complication after allogeneic hematopoietic stem cell transplantation (HSCT) that impairs quality of life, functional status, and long-term survival. There is no standard therapy for patients whose cGVHD does not resolve with immunosuppressors and corticosteroid treatment. The aim of this study was to compare the cost-effectiveness of extra-corporeal photopheresis (ECP) with Rituximab (Rmb) or Imantinib (IMT) or pooled comparators (pooled) in addition to the usual care of cGvHD after standard treatment failure in Spain. **METHODS:** The model assessed the incremental cost-effectiveness ratio (ICER) of ECP versus Rmb or IMT or pooled comparator. The incremental cost and quality-adjusted life-year (QALY) gained were estimated using a short-term decision analysis and a long-term Markov cohort modeling approach. Model probabilities were obtained from literature, while treatment pathways and adverse event where derived from expert opinion. Local data on health resources use and costs were used and validated by clinical experts. The time horizon of the study was 5 years and only direct local medical costs (euros 2010) were considered. a probabilistic sensitivity analysis was performed. **RESULTS:** Preliminary results show that the higher efficacy of ECP leads to a gain of 0.19–0.20 QALY at first year and 0.15–0.19 at year 5 when compared to Rmb or IMT or pooled. The short-term cost of ECP is higher than Rmb (€2.900), IMT (€800) and pooled (€1.800). The ICER results for ECP for the first year were €15,340 versus RMB, €3.663 verus IMT and €8.977 versus pooled. At 3 years, ECP was dominant versus IMT and pooled, and showed ICER less than €3.000 vs. Rmb. The results of the evaluation were sensitive to limited data available. **CONCLUSIONS:** Preliminary results of this study indicate ECP is a cost-effective, below the Spanish threshold, or dominant option with respect altenatives.

PCN77

COST-EFFECTIVENESS OF OCTREOTIDE LAR IN PATIENTS WITH METASTATIC NEUROENDOCRINE MIDGUT TUMORS FROM THE PRIVATE PAYER PERSPECTIVE IN BRAZIL

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OBJECTIVES: Octreotide LAR has shown antiproliferative activity in advanced midgut neuroendocrine tumors (NET) increasing time to tumor progression (TTP) compared to placebo. This study aims to assess the costs and consequences of OCT-LA versus best supportive care (BSC) in patients with metastatic midgut NET from the private payer perspective. **METHODS:** A three health state (progression-free survival, progression, and death) Markov model with a 10-year time horizon was developed with data from the phase III PROMID trial. Within the trial, subjects remained on treatment until progression. Resource use was estimated through published data and input from clinical experts to reflect clinical practice in the Brazilian private setting. Unit costs were obtained from Brazilian official sources. Costs and outcomes were discounted 5% per annum. **RESULTS:** The model estimated 14 months PFS with OCT-LA versus 6 months with BSC. Estimated PFS gain was 0.60 years (1.07 vs. 0.46). Total cost of treatment was 275,497 BRL for BSC and 303,111 BRL for OCT-LA. The incremental cost per progression-free year gained was 28,706 BRL in the OCT-LA arm versus BSC due to treatment until progression. The mean cost of supportive care for progressive disease represented 87.3% (239,883 BRL) and 76.9% (224,388 BRL) of the final cost of treatment for BSC and OCT-LA, respectively. Results remained consistent when univariate sensitivity analyses were run. **CONCLUSIONS:** OCT-LA is a clinically effective option to control tumor growth in patients with metastatic midgut NET. OCT-LA provides longer TTP compared to BSC for those patients. Although there is ecological evidence to suggest improvement in OS after introduction of OCT LA, the ICER for an additional life-year gained is not currently calculable as the PROMID trial was not designed to evaluate OS. Further areas of research to elucidate the association between PFS and OS in NET are needed.

PCN78

OST-EFFECTIVENESS ANALYSIS OF ADJUVANT THERAPY WITH IMATINIB MESYLATE IN PATIENTS AFTER RESECTION OF LOCALIZED PRIMARY GASTROINTESTINAL STROMAL TUMOR

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OBJECTIVES: Imatinib is a low molecular tyrosine kinase inhibitor that blocks the kinase activity KIT and PDGFRα, and a first-line drug in the treatment of unresectable and metastatic gastrointestinal stromal tumor (GIST). The standard treatment of patients with localized primary GIST is a complete surgical resection of the tumor. Several studies have shown that target therapy improves survival of patients after GIST resection. The purpose of this study was to estimate the costs and effectiveness of adjuvant imatinib therapy versus no treatment in patients who have undergone GIST resection. **METHODS:** A Markov model was used to estimate costs and effectiveness of adjuvant imatinib therapy in the long-term follow-up period. Data on overall and recurrence-free survival were taken from the phase III clinical trial ACOSOG Z9001 and were used to assess efficacy. Measures of effectiveness include such indicators as life-years saved and quality-adjusted life-years (QALYs) gained for adjuvant imatinib following surgical resection and surgical resection only. Data on the common practice of GIST treatment in the Russian oncology centers were used in the model. Costs, life-years, and QALYs gained were calculated over the 50-year time horizon and discounted at an annual rate of 5%. **RESULTS:** The number of life-years saved was 10.01 for imatinib treatment against 8.67 for no treatment. The number of QALYs was 7.97 and 6.82, respectively. The costs of 1-year patient management with adjuvant imatinib therapy were €44,348 per person; a patient who had not received imatinib in adjuvant mode required €32,102 per person. **CONCLUSIONS:** The analysis showed that adjuvant imatinib therapy is more costly compared with no treatment. However, it is more effective and can increase the life expectancy of patients. In this